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10/051,897	01/17/2002	Eric V. Erickson	01-199	7942

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EXAMINER
ABELSON, RONALD B

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/051,897	ERICKSON, ERIC V.
	Examiner	Art Unit	
	Ronald Abelson	2616	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 July 2006</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,14-17 and 19-24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,14-17 and 19-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *1/17/2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Claim Objections

1.   Claim 1 objected to because of the following informalities:

The term "said channel resources" in line 4 should be changed to

"said channel resource devices".   Appropriate correction is

required.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the
> art to which said subject matter pertains.   Patentability shall not be
> negatived by the manner in which the invention was made.

3.   Claims 1-4, 6, 9-12, 14-17, and 19-23 are rejected under 35

U.S.C. 103(a) as being unpatentable over Robinson (US 6,963,926)

in view of McCallister (US 20010010681).

Regarding claim 1, Robinson teaches providing a

communication platform comprising a plurality of channel

resource devices / nodes, in which said channel resource devices

operate to establish call connections (call attempt process,

call request, col. 2 lines 43-57).

Robinson teaches receiving connection outcome results of previous call connections handled by the channel resource devices wherein the connection outcome results are indicative of channel failures (call request blocked, cranked back, col. 2 lines 49-51).

Robinson teaches generating a statistical analysis based at least in part, on the connection outcome results (list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37). Note, the examiner maintains the list is dynamically updated due to crank back information (extends a routing history, packet returned, col. 2 lines 53-58).

Robinson teaches assigning an incoming call to at least one available channel resource device of the plurality of channel resource devices, said at least one available channel resource device selected at least in part, in response to the statistical analysis (each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37, 39-41).

Although Robinson teaches link blocking probabilities, the reference is silent on the connection outcome results indicative of channel resource device failures.

McCallister teaches connection outcome results indicative of channel resource device failures (abstract, physical failure, cranks the call back, [0010]). The examiner corresponds "physical failure" to be failure of a node.

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Robinson by sending a crankback signal in the event of failure of the channel resource device. This modification can be performed in software according to the teachings of McCallister. This modification would benefit the system by allowing for a crankback message to be sent in the event of a channel resource device failure.

Regarding claim 16, Robinson teaches a channel evaluator operable to generate a statistical analysis based at least in part, on connection outcome results (each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37).

Robinson teaches a storage buffer / routing table for storing the connection outcome results (each node has a routing

table containing a list of nodes ranked in order of their link

blocking probabilities, col. 2 lines 33-37).

Robinson teaches a call router for routing incoming calls

to available channel resource devices selected in response to

the statistical analysis (each node has a routing table

containing a list of nodes ranked in order of their link

blocking probabilities, col. 2 lines 33-37).

Although Robinson teaches link blocking probabilities, the

reference is silent on the connection outcome results indicative

of channel resource device failures.

McCallister teaches connection outcome results indicative

of channel resource device failures (abstract, physical failure,

cranks the call back, [0010]). The examiner corresponds

"physical failure" to be failure of a node.

Therefore it would have been obvious to one of ordinary

skill in the art, to modify the system of Robinson by sending a

crankback signal in the event of failure of the channel resource

device. This modification can be performed in software according

to the teachings of McCallister. This modification would benefit

the system by allowing for a crankback message to be sent in the

event of a channel resource device failure.

Regarding claim 2, the step of assigning an incoming call
to the at least one available channel resource device is
performed using the statistical analysis to identify channel
resource devices that successfully connect calls (Robinson: each
node has a routing table containing a list of nodes ranked in
order of their link blocking probabilities, col. 2 lines 33-37).

Regarding claim 3, a non-preferred channel resource device
is one which fails to connect calls, and wherein the step of
assigning incoming call to the at least one available channel
resource device, comprises to not assign the incoming call to
the non-preferred channel resource device (call request blocked
at all exists cranked back, col. 2 lines 48-51).

Regarding claim 4, the step of storing being performed
after the step of receiving connection outcome results from
previous call connections. (Robinson: each node has a routing
table containing a list of nodes ranked in order of their link
blocking probabilities, col. 2 lines 33-37).

Regarding claim 6, the statistical analysis is a no
weighting method (Robinson: each node has a routing table

containing a list of nodes ranked in order of their link
blocking probabilities, col. 2 lines 33-37).

Regarding claim 9, classifying the available channel
resource device based at least in part, on the statistical
analysis (Robinson: each node has a routing table containing a
list of nodes ranked in order of their link blocking
probabilities, col. 2 lines 33-37).

Regarding claim 10, the method is self adjusting in which,
an available preferred channel resource device becomes an
available non-preferred channel resource device due to a failure
call connect attempt and the available non-preferred channel
resource device becomes the available preferred channel resource
device due to a successful call connect attempt (Robinson: each
node has a routing table containing a list of nodes ranked in
order of their link blocking probabilities, col. 2 lines 33-37).
Note, the examiner maintains the list is dynamically updated due
to crank back information (extends a routing history, packet
returned, col. 2 lines 53-58).

Regarding claim 11, indicating to a user / originator a
change in channel resource device status (col. 2 lines 41-43).

Regarding claim 12, determining which channel resource devices are available (Robinson: each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37).

Regarding claim 14, assessing a failure to the available channel resource device upon an unsuccessful call connection through the channel resource device (Robinson: call request blocked, cranked back, col. 2 lines 49-51).

Regarding claim 15, reassigning the incoming call to a next preferred available channel resource device (Robinson: each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37).

Regarding claim 17, channel evaluator classifies available channel resource devices, at least in part on the statistical analysis generated from the previous call connect results. (Robinson: each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37).

Regarding claim 19, channel evaluator classifies channel
resource devices, at least in part on the availability of a
channel resource device (Robinson: each node has a routing table
containing a list of nodes ranked in order of their link
blocking probabilities, col. 2 lines 33-37).

Regarding claim 20, incoming calls are assigned to available
channel resource devices, and connected to the channel
resource devices through the call router based at least in part,
on the statistical analysis. (Robinson: each node has a routing
table containing a list of nodes ranked in order of their link
blocking probabilities, col. 2 lines 33-37).

Regarding claims 21 and 22, available channel resource
devices are one of a plurality of ingress ports, egress ports,
and a plurality of channel processors / nodes (Robinson: each
node has a routing table containing a list of nodes ranked in
order of their link blocking probabilities, col. 2 lines 33-37).

Regarding claim 23, available channel resource device
failures are hardware failures (McCallister: abstract, physical
failure, cranks the call back, [0010]).

4.   Claim 5 rejected under 35 U.S.C. 103(a) as being

unpatentable over the combination of Robinson and McCallister as

applied to claim 4 above, and further in view of McKee (US

6,810,343).

     The combination is silent on the buffer is a circular

buffer.

     McKee teaches a circular buffer (col. 3 lines 19-22).

     Therefore it would have been obvious to one of ordinary

skill in the art, to modify the system of the combination by

incorporating within the routing table a circular buffer. The

suggestion for the modification is circular buffers allows for

the storing of the most recently collected data by continuously

overwriting the previously collected data (McKee: col. 3 lines

19-22). This enables an efficient use of buffer space.

5.   Claim 7 rejected under 35 U.S.C. 103(a) as being

unpatentable over the combination of Robinson and McCallister as

applied to claim 1 above, and further in view of Lin (US

5,831,976).

     The combination is silent on time-weighting.

     Lin teaches time-weighting (col. 7 lines 47-49).

     Therefore it would have been obvious to one of ordinary

skill in the art, to modify the system of the combination by time weighing the connection outcome results. This modification can be performed in software. This modification would benefit the system by allowing for the most recent, which are the most relevant, connection outcome results to be given more weight than results that transpired far in the past.

6.   Claim 8 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Robinson and McCallister as applied to claim 1 above, and further in view of McCallister.

The combination is silent on an asymmetrical weighting method wherein success receives one value, and failure receives another value.

McCallister teaches an asymmetrical weighting method wherein success receives one value, and failure receives another value (physical failure, node attempts to reroute). Note, a single physical failure determines rerouting, therefore failure is given a higher weight than success.

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination by rerouting due to a single physical failure. This modification can be performed in software. This modification would benefit the system by performing immediate rerouting due to a physical

failure.

7.   Claim 24 rejected under 35 U.S.C. 103(a) as being

unpatentable over the combination of Robinson and McCallister as

applied to claim 1 above, and further in view of applicant's

admitted prior art 'AAPA'.

AAPA teaches channel resource device failures being

software (pg. 3 lines 2-4).

Therefore it would have been obvious to one of ordinary

skill in the art, to modify the system of the combination by

storing in the routing table whether the call processor failed

due to a software error. This modification can be performed in

software. This modification would benefit the system by not

routing to a call processor if the call processor is currently

inoperable due to a software failure.

Response to Arguments

8.   Applicant's arguments with respect to claims 1-12, 14-17,

and 19-24 have been considered but are moot in view of the new

ground(s) of rejection.

Conclusion

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Ronald   Abelson
Examiner
Art Unit 2616

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